

REMARKS

Claims 1-21 are pending.

The specification has been amended to overcome the objection noted by the examiner.

Claims 1-21 were rejected under 35 U.S.C. §102(b) as being anticipated by Fujii, (US 2003/0071436). The applicant respectfully requests reconsideration of this basis for rejection.

The applicant was not arguing in the previous response that there is an issue with respect to the interpretation of a “reacquired” speed. Claim 1 recites a canceling unit that cancels a tentative shift if a decision unit decides that a current running condition value varies from a previous running condition value by a determined value. In other words, there must be a comparison between two running conditions (e.g., running speeds) before a tentative shift is canceled.

Fig. 6 in the patent application illustrates the subject matter of claim 1. Assume the bicycle speed is sampled at two consecutive times, say initially at Time1 and then later at Time2. The first time through the routine at Time1, the bicycle speed S is sampled in step S22, and then it is determined in step S23 whether or not the bicycle speed S is greater than the upshift threshold value U(VP). If so, a tentative shift is set. If this is the first time that the bicycle speed S exceeds the upshift threshold value U(VP), then an upshift flag FU is set in step S28, and the bicycle speed S sampled at Time1 is stored in a memory array at location S(1) in step S30. The upshift flag FU is a convenient way of keeping track of the tentative shift status in software. The next time through the routine at Time2, the bicycle speed S is sampled again in step S22, and then it is determined in step S23 whether or not the bicycle speed S sampled at Time2 is greater than the upshift threshold value U(VP). If so, then bicycle speed S sampled at Time2 is stored in the memory array at location S(2) in step S32.

The distinctive part in the preferred embodiment occurs in step S33. In step S33, the bicycle speed S(1) sampled at Time1 is subtracted from the bicycle speed S(2) sampled at Time2, and the resulting difference is compared to the reference value SA. If the result of the subtraction is greater than the reference value SA, the tentative shift is canceled. The upshift flag FU is turned off in step

S24, thereby indicating in the software a canceling of the tentative shift that was originally set by the “yes” determination in step S23 when going through the routine at Time1.

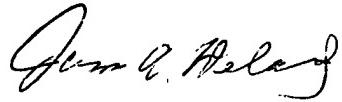
The office action maintains that the tentative shift canceling feature is satisfied by step S24 in Fig. 6 of Fujii. However, applied to the Fujii embodiment, Fujii never compares two sampled speeds to each other, so nothing in Fujii “decides that a current running condition value varies from a previous running condition value by a determined value” as recited in claim 1. It is true that step S24 in Fujii determines whether or not a current speed is less than a downshift threshold value D(VP). It also is true that step S24 could be reached if it is determined in step S27 that a current bicycle speed S is not greater than an upshift threshold value, thereby canceling a tentative shift. For example, again assume that the bicycle speed S is sampled at two consecutive times, Time1 and Time2. The first time through the routine at Time1, the bicycle speed S is sampled in step S22, and then it is determined in step S23 whether or not the bicycle speed S is greater than the upshift threshold value U(VP). A “yes” determination sets a tentative shift, and a timer is set to count down a time interval T1. The routine loops through steps S25, S26 and S27 until either the time interval T1 expires or else the bicycle speed S falls below the upshift threshold value U(VP). If the time interval expires, then the bicycle transmission upshifts accordingly. On the other hand, if the bicycle speed S falls below the upshift threshold value U(VP), the tentative shift is canceled. However, the tentative shift is not canceled in response to a comparison of two bicycle speeds to each other, which would be covered by claim 1, but simply because the most recently sampled bicycle speed S fell below the upshift threshold value U(VP). Thus, Fujii neither discloses nor suggests the subject matter recited in claim 1.

Accordingly, it is believed that the rejection under 35 U.S.C. §102 has been overcome by the foregoing remarks, and it is submitted that the claims are in condition for allowance. Reconsideration of this application is respectfully requested. Allowance of all claims is earnestly solicited.

RYUICHIRO TAKAMOTO, et al
Application No.: 10/711,548
Page 5

PATENT

Respectfully submitted,



James A. Deland
Reg. No. 31,242

DELAND LAW OFFICE
P.O. Box 69
Klamath River, California 96050
(530) 465-2430